

Appln No. 09/483,315

Amdt date November 13, 2003

Reply to Office action of May 13, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A wireless communication system, comprising:

a network;

a general purpose node electrically connected to the network for providing access through the network, the general purpose node having a wireless communication device;

at least one media device connected to the network;

and

a portable access unit capable of wirelessly communicating with the general purpose node through the wireless communications device for communicating with the media device through the network,

wherein a user command from the portable access unit is executed by the media device separate from the portable access unit,

wherein the media device comprises a display for receiving video signals transmitted from the portable access unit for presenting on the display.

2. - 3. (Canceled)

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4. (Currently amended) [~~The system of claim 1,~~] A wireless communication system, comprising:

a network;

a general purpose node electrically connected to the network for providing access through the network, the general purpose node having a wireless communication device;

at least one media device connected to the network;

and

a portable access unit capable of wirelessly communicating with the general purpose node through the wireless communications device for communicating with the media device through the network,

wherein a user command from the portable access unit is executed by the media device separate from the portable access unit,

wherein the media device comprises a speaker for receiving audio signals transmitted from the portable access unit for presenting on the speaker.

5. - 8. (Canceled)

9. (Original) The system of claim 1, wherein the portable access unit further comprises a sensor for transmitting data signals collected by the sensor to the media device.

10. (Original) The system of claim 9, wherein the sensor comprises a biological sensor.

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11. (Original) The system of claim 9, wherein the sensor comprises an environmental sensor.

12. (Original) The system of claim 1, wherein the media device comprises a sensor for transmitting signals comprising data collected by the sensor to the local portable access unit.

13. (Original) The system of claim 12, wherein the sensor comprises a biological sensor.

14. (Original) The system of claim 12, wherein the sensor comprises an environmental sensor.

15. - 22. (Canceled)

23. (Currently amended) A method for communicating through a network with at least one media device connected to the network, comprising:

providing access to the network with a general purpose node electrically connected to the network, the general purpose node having a wireless communication device;

communicating wirelessly with the remote media device through the general purpose node and the network with a portable access unit that is in wireless communication with the general purpose node;

transmitting a user command from the portable access unit to the media device for controlling the media device; and

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executing the user command with a media device separate from the portable access unit,
transmitting video signals from the portable access unit to the media device for presenting the video signals on the media device.

24. - 25. (Canceled)

26. (Currently amended) [~~The method of claim 23, further comprising~~] A method for communicating through a network with at least one media device connected to the network, comprising:

providing access to the network with a general purpose node electrically connected to the network, the general purpose node having a wireless communication device;

communicating wirelessly with the remote media device through the general purpose node and the network with a portable access unit that is in wireless communication with the general purpose node;

transmitting a user command from the portable access unit to the media device for controlling the media device; and

executing the user command with a media device separate from the portable access unit,

transmitting audio signals from the portable access unit to the media device for presenting the audio signals on the media device.

27. - 38. (Canceled)

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39. (Currently amended) A wireless communications interface system, comprising:

a portable user interface unit secured to a user and having a display, an encoder, a decoder, and a transceiver, said encoder configured to receive a user command and format said user command for transmission by said transceiver over a wireless connection;

a network;

a routing node having a transceiver configured to receive said user command transmitted by said transceiver of said user interface unit through said wireless connection, wherein said routing node establishes a connection to said network; and

a media device coupled to said network, wherein

said routing node transmits said user command to said media device over said network using said routing node transceiver,

said media device executes said user command separate from said user interface unit to generate a result,

said routing node directs the result from said media device, over said network, to said decoder of said user interface unit through said routing node over said wireless connection using said routing node transceiver, and

said decoder is configured to format the result for presentation to the user with said user interface unit display,

wherein said media device comprises a display for receiving video signals transmitted from said portable user

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interface unit, through said routing node, and over said network to said display for presentation on said display.

40. - 75. (Canceled)

76. (New) A mobile access unit for use in a localized communications system, comprising:

a video input configured to receive real-time video information formatted in accordance with a first video format;

a video output configured to provide real-time video information formatted in accordance with a second video format;

a codec connected to the video input and video output that is configured to convert real-time video information encoded in the first video format to a third video format and to convert real-time video information encoded in the third video format into the second video format; and

a transceiver, comprising:

a transmitter connected to the codec that is configured to transmit a data stream generated by the codec over an upstream wireless communication link; and

a receiver connected to the codec that is configured to receive a data stream transmitted over a downstream wireless communication link.

77. (New) The mobile access unit of claim 76, wherein:
the codec is configured to multiplex real-time video encoded in the third video format with other data to generate the data stream provided by the codec to the transmitter; and

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the codec is configured to demultiplex real-time video encoded in the third video format from the data stream provided to the codec by the receiver.

78. (New) The mobile access unit of claim 76, further comprising a head up display is connected to the video output and configured to receive real-time video formatted in accordance with the second video format.

79. (New) The mobile access unit of claim 76, further comprising a video camera is connected to the video input and configured to provide a real-time video output formatted in accordance with the first video format.

80. (New) The mobile access unit of claim 76, further comprising:

an audio input configured to receive real-time audio information formatted in accordance with a first audio format;

an audio output configured to provide real-time audio information formatted in accordance with a second audio format;

wherein the codec is connected to the audio input and the audio output;

wherein the codec is configured to convert real-time audio information encoded in a first audio format to a third audio format and to convert real-time audio encoded in the third audio format into the second audio format;

wherein the codec is configured to multiplex real-time video encoded in the third video format with at least the real-

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time audio formatted in the third audio format to generate the data stream that is provided to the transmitter; and

wherein the codec is configured to demultiplex real-time video encoded in the third video format from the data stream provided by the receiver that also includes at least real-time audio encoded in a third audio format.

81. (New) The mobile access unit of claim 80, further comprising a headphone set connected to the audio output and configured to receive real-time audio formatted in accordance with the second audio format.

82. (New) The mobile access unit of claim 80, further comprising a microphone connected to the audio input and configured to provide a real-time video output formatted in accordance with the first audio format.

83. (New) The mobile access unit of claim 76, further comprising:

a user interface input configured to receive information provided in a first user interface format;

wherein the codec is connected to the user interface input and is configured to convert the user interface information encoded in the first user interface format to a second user interface format;

wherein the codec is configured to multiplex the real-time video encoded in the third video format with at least the user interface information encoded in the second user interface

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format to form a data stream that is provided to the transmitter; and

wherein the user interface information encoded in the second user interface format is capable of commanding a remote device.

84. (New) The mobile access unit of claim 76, wherein the codec is implemented using at least one electronic device.

85. (New) A communication system, comprising:
at least one mobile access unit configured to communicate in a localized area with a base station, the mobile access unit comprising:

a video input configured to receive real-time video information formatted in accordance with a first video format;

a video output configured to receive real-time video information formatted in accordance with a second video format;

a mobile access unit codec connected to the video input and the video output that is configured to convert real-time video information encoded in the first video format to a third video format and to convert real-time video information encoded in the third video format into a second video format;
and

a transceiver, comprising:

a mobile access unit transmitter connected to the mobile access unit codec that is configured to transmit a data stream generated by the codec over an upstream wireless communication link; and

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a mobile access unit receiver connected to the mobile access unit codec that is configured to receive a data stream transmitted over a downstream wireless communication link; and

a fixed base station, comprising:

memory containing a registry of mobile access units within the localized area;

a transceiver, comprising:

a base station transmitter that is configured to transmit a data stream generated over the downstream wireless communication link; and

a base station receiver configured to receive a data stream transmitted over the upstream wireless communication link.

86. (New) The communications system of claim 85, further comprising:

a base station router connected to the base station transceiver;

wherein the mobile access unit codec:

is configured to multiplex real-time video encoded in the third video format with other data to generate the data stream provided to the mobile access unit transmitter; and

is configured to demultiplex real-time video encoded in the third video format from the data stream provided to the mobile access unit codec by the mobile access unit receiver; and

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wherein the base station router:

is configured to multiplex real-time video encoded in the third video format with other data to generate the data stream provided by the base station router to the base station transmitter; and

is configured to demultiplex real-time video encoded in the third video format from the data stream provided to the base station router by the base station receiver.

87. (New) The communication system of claim 86, further comprising:

a network bridge connected to the base station router; and

wherein the base station router is configured to receive real-time video encoded in the third video format from the base station receiver and route the real-time video encoded in the third video format to the base station transmitter or to the network bridge.

88. (New) The communication system of claim 87, wherein:

the mobile access units further comprise:

an audio input configured to receive real-time audio information formatted in accordance with a first audio format;

wherein the mobile access unit codec is connected to the audio input;

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wherein the mobile access unit codec is configured to convert real-time audio information encoded in a first audio format to a third audio format;

wherein the mobile access unit codec is configured to multiplex real-time video encoded in the third video format with at least the real-time audio formatted in the third audio format to generate the data stream that is provided to the transmitter; and

wherein the fixed base station router is configured to demultiplex at least real-time video encoded in the third audio format and real-time audio encoded in the third audio format from the data stream received from the base station receiver; and

wherein the base station router is configured to route real-time audio encoded in the third audio format to the base station transmitter or to the network bridge.

89. (New) The communication system of claim 88, wherein the router is configured to route real-time video encoded in the third video format independent of the real-time audio encoded in the third audio format.

90. (New) The communication system of claim 88, further comprising:

a device connected to the network bridge via a network;
a microphone connected to the audio input of one of the mobile access units;

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wherein the microphone is configured to generate real-time audio including voice commands in the first audio format;

wherein the device is configured to receive real-time audio information encoded in the third audio format from the fixed base station via the network;

wherein the device is configured to identify voice commands in real-time audio encoded in the third audio format; and

wherein the device is configured to respond to the identified voice commands.

91. (New) The communication system of claim 90, wherein:

the base station router is configured to rout real-time audio encoded in the third audio format to the to the base station transmitter or to the network bridge; and

real-time audio encoded in the third user interface format that is received by the network bridge is sent to at least one device via the network.

92. (New) The communication system of claim 86, wherein:

the mobile access units further comprise:

an user interface input for receiving user input encoded in a first user input format;

wherein the mobile access unit codec is connected to the user interface input and is configured to convert the user interface information encoded in the first user interface format to a second user interface format;

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wherein the mobile access codec is configured to multiplex the real-time video encoded in the third video format with at least the user interface information encoded in the second user interface format to form a data stream that is provided to the mobile access unit transmitter.

93. (New) The communication system of claim 92, wherein the base station router is configured to independently route real-time video information encoded in the third video format and user interface information encoded in the second user interface information format.

94. (New) The communication system of claim 92, further comprising:

a device connected to the network bridge via a network;
wherein the fixed base station router is configured to demultiplex user interface information encoded in the third user interface format from the data stream provided to the base station router by the base station transceiver;

wherein the router is configured to route user interface information encoded in the third user interface format received from the base station router to the base station transmitter or the network bridge;

wherein the device is configured to receive user interface information encoded in the third user interface format from the fixed base station via the network; and

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wherein the device is configured to respond to user interface information encoded in the third user interface format.

95. (New) The communication system of claim 86, wherein:

the base station router is configured to multiplex the real-time video encoded in the third format that is received by the base station router in a data stream generated by the first mobile access unit into a data stream that is provided to the base station transmitter; and

the base station transmitter is configured to transmit the data stream generated by the base station codec that contains at least the real-time video encoded in the third format from the data stream generated by the first mobile access unit to a third of the mobile access units.